NOVA SCOTIA AGRICULTURAL COLLEGE

REPORT OF THE PRINCIPAL

1989-1990

TRURO, N.S.

91-05158/

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NOVA SCOTIA AGRICULTURAL COLLEGE

OVERVIEW

Enrollment at N.S.A.C. declined slightly in the degree program and was maintained in technical and technician programs. The drop in enrollment was not perceptious but combined with a slow decline for a couple of years it indicated the need for a serious analysis. The analysis showed the decline was due almost entirely to a decline in rural males. Two faculty members in Economics and Business had completed a survey of student attitudes and had found that we had a major image problem in that students associated agriculture entirely with farming.

A Principal's Task Force was formed to address the College's recruitment problem and a new strategy with new materials will begin for the 1991-92 year.

However, even before this recruitment program got underway the enrollment in the first year for 1990-91 had increased dramatically.

On July 1, 1990, Robert Stevens, assumed the duties of Dean of Student Services, bringing with him a strong background in university residence management. There are already more students in residences and student life appears to have got off to a much better start.

With the arrival of a new Dean a new office of Student Services and the Registrar was established in Cox Institute. At the same time all the administative functions of the College were combined in Cumming Hall with the Dean of Vocational and Technical joining the Principal and Vice-Principal.

During the year some major reorganization of internal governance of the College was achieved with the development of the Academic Planning Committee and a Financial and Physical Planning Committee. As well a reorganization of the functioning of faculty council and the committees of faculty was achieved.

A number of new faculty appointments were made in 1989-90 as either replacements for retirees or resignations. A new appointment in Food Science will allow us to begin the Food Technology program and an appointment of an ecologist was essential for the development of Environmental Biology.

The faculty of 70 can be characterized as relatively young in academic terms, with considerable enthusiasm and vigor. They attracted research funds in excess of $1.6 million which places N.S.A.C. fourth in research grant money of all universities in Nova Scotia. (The first three are Dalhousie, TUNS and St. Mary's.)

L. E. Haley
Principal

REGISTRATION

1989-90

1st Year B.Sc.(Agr.)	91	
2nd Year B.Sc.(Agr.)	78	
3rd Year B.Sc.(Agr.)	50	
4th Year B.Sc.(Agr.)	54	
Sub-Total B.Sc.(Agr.)		273
1st Year Engineering	11	
2nd Year Engineering	8	
Sub-Total Engineering		19
1st Year Technicians	47	
2nd Year Technicians	39	
Sub-Total Technicians		86
1st Year Technology	51	
2nd Year Technology	41	
Sub-Total Technology		92
Total Full Time Students		470
Special students (Part-time)	25	25
TOTAL ALL STUDENTS		495

FACULTY OF INSTRUCTION

COLLEGE YEAR 1989-90

Principal

L.E. Haley, B.S.A. (Toronto), M.S.A. (Toronto), Ph.D. (California)

Principal Emeritus

Kenneth Cox, B.S.A. (Toronto), M.S.A. (McGill), L.L.D. (McGill)

Vice-Principal

I. M. Fraser, B.Sc. (Dalhousie), M.A. (Maine)

Dean, Vocational and Technical Education

A.D. Ells, B.Sc.(Agr.) (McGill), M.A. (Acadia)

Registrar

V. L. Saxon, B.Sc.(Dalhousie), B.Ed.(Acadia), B.Eng.(Nova Scotia Technical College),M.B.A.(Dalhousie),

Librarian

B.S. Sodhi, B.A. (Punjab), M.A. (Punjab), Dip. L. Sc. (Punjab)

Dean of Students - Chaplain

Rev. D.I. MacEachern, B.A. (Mt. Allison), M.Div. (Pine Hill)

Deans of Residence

J. M. Smith, B.P. Ed. (Dalhousie)
K. Greenwood
J. M. Bowker, B.A.(Bates), Ph.D.(Texas A & M)

Director of Athletics

K. S. Marchant, B.P. Ed. (New Brunswick), M.S. (Springfield)

Placement Officer

B. M. Crouse, B.Sc.(Agr.)(Guelph)

Farm Manager

E. G. Maynard, B.S.A. (Toronto), B.Ed. (Mt. Allison), M.S.A.(Guelph)

Agricultural Engineering

J.D. Cunningham, B.S.A. (Toronto), B.E. (Nova Scotia Technical College), M.A.Sc. (Technical University of Nova Scotia) - Associate Professor and Head
James Adams, B.Sc. (Strathclyde), M.Sc. (Reading) - Associate Professor
J. F. Adsett, B.Sc.(Agr.)(McGill), M.Sc.E.(U.N.B.) - Assistant Professor
D.A. Allen, B.Sc. (Eng.) (Guelph), M.Sc. (Agr. Eng.) (Purdue) - Associate Professor
P.L. Havard, B.Sc. (Agr. Eng.) (McGill), M.Sc. (Agr. Eng.)(McGill) - Associate Professor
S.A. Madani, B.Sc. (Bahlavi), M.Sc. (British Columbia), Ph.D. (Washington) - Assistant Professor
M.N. Rifai, M.Sc. (Nitra), Ph.D (Nitra) - Associate Professor
K.J. Sibley, B.Sc.(Agr.Eng.)(McGill), M.Sc. (Agr.Eng.)(McGill) - Assistant Professor

Animal Science

D.C. Crober, B.Sc. (Agr.) (McGill), M.Sc. (McGill), Ph.D. (British Columbia) - Professor and Head
P.Y. Hamilton, B.Sc. (Agr.) (McGill), M.Sc. (Maine) - Professor Emeritus
D.M. Anderson, B.S.A. (Manitoba), M.Sc. (Manitoba), Ph.D. (Saskatchewan) - Associate Professor
L.M. Cock, B.Sc. (Agr.) (McGill), M.S. (Wisconsin), Ph.D. (Maine) - Professor and Head
N. L. Firth, B.Sc. (Edinburgh), M.S. (Purdue), Ph.D. (Cornell) - Assistant Professor
A.H. Fredeen, B.S.A. (Saskatchewan), M.Sc. (Guelph), Ph.D. (California) - Assistant Professor
A. Lirette, B.Sc.,S.(Medicine)(Laval), B.Sc.A.(Laval), M.Sc.(Laval), Ph.D. (Alberta) - Assistant Professor
E. G. Maynard, B.S.A.(Toronto), B.Ed.(Mt. Allison), M.S.A.(Guelph) - Farm Manager
D.L. Patterson, B.Sc. (Alberta), M.Sc. (Guelph), Ph.D. (Guelph) - Associate Professor
T. Semple, D.V.M. - Sessional Lecturer
W. B. Ramsay, D.V.M. (Guelph) - Assistant Professor
T. Tennessen, B.A. (Alberta), B.Sc. (Alberta), M.Sc. (Alberta), Ph.D. (Alberta) - Assistant Professor

Biology

L.J. Eaton, B.Sc. (Acadia), M.Sc. (Dalhousie), Ph.D. (Dalhousie) - Associate Professor and Head
A.E. Roland, B.A. (Acadia), M.A. (Toronto), Ph.D.(Wisconsin),D.Sc.(Acadia), D.Sc.(Dalhousie), F.A.I.C. - Professor Emeritus
M.E. Neary, B.Sc. (Agr.) (McGill) - Professor Emeritus
L.E. Crosby, B.Sc. (Acadia), M.Sc. (Acadia) - Associate Professor

A.B. Gray, B.Sc. (Bishops), M.Sc. (McGill), Ph.D.(McGill) - Associate Professor
J.-P.R. Le Blanc, B.A. (Montreal), B.Sc. (Quebec), Ph.D. (McGill) - Associate Professor
L.A. McFadden, B.Sc. (Agr.) (McGill), M.Sc. (Cornell), Ph.D. (Cornell) - Professor
A.R.Olson, B.A. (Augustana), M.Sc. (Wisconsin), Ph.D. (Alberta) - Associate Professor
M.G. Sampson, B.Sc. (Dalhousie), B.Sc. (Agr.) (McGill), M.Sc. (McGill) - Assistant Professor
R. Singh, B.Sc.(Agr.)(AGRA Univ.), M.Sc. (Agr.)(AGRA Univ.), Ph.D. (N. Dakota) - Adjunct Professor
G.W. Stratton, B.Sc. (Agr.) (Guelph), M.Sc. (Guelph), Ph.D. (Guelph) - Associate Professor

Chemistry-Soils

H.M. MacConnell, B.Sc. (Agr.) (McGill), M.Sc. (McGill) - Associate Professor and Head
W.M. Langille, B.Sc. (Acadia), M.Sc. (McGill) - Professor Emeritus
G. R. Brewster, B.A.(Western Ont.), M.Sc.(Western Ont.), Ph.D.(Western Ont.) - Associate Professor
J.E. Hawley, B.Sc. (Agr.) (McGill) - Assistant Professor
J. Hoyle, B.A.(Univ. York), B.A.(Open Univ.), M.Sc.(Leeds), Ph.D.(Dalhousie) - Assistant Professor
J.C. Miller, B.Sc. (Agr.) (Guelph), M.Sc. (Alberta) - Assistant Professor
A.S. Payne, B.Sc. (Agr.) (McGill), M.Sc. (McGill) - Associate Professor
A.R. Robinson, B.Sc. (Agr.) (McGill), M.Sc. (McGill), Ph.D. (McGill) - Professor
P.R. Warman, B.Sc. (Agr.) (Rutgers), M.Sc. (Guelph), Ph.D. (Guelph) - Associate Professor

Economics and Business Management

J.C. Tait, B.Sc. (Agr.) (McGill), M.Sc. (New Hampshire) - Associate Professor and Head
D.E. Arnfast, B.B.A. (St. Francis Xavier) - Assistant Professor
J. M. Bowker, B.A.(Bates), Ph.D.(Texas A & M) - Assistant Professor
A.D. Ells, B.Sc. (Agr.) (McGill), M.A. (Acadia) - Associate Professor
K.G. Grant, B.A. (Acadia), M.A. (Western Ontario), Ph.D. (Western Ontario) - Associate Professor
P. Lederman, B.A.(Queens), M.A.(Dalhousie), LL.B.(Queens), BCL(Oxford) - Sessional Lecturer
S.G. Russell, B.Sc.(Agr. Ec.)(Guelph), M.B.A. (St. Mary's) - Assistant Professor
S.J.B. Stackhouse, B.Sc. (Agr.Ec.) (Guelph), M.Sc. (Guelph) - Associate Professor

Humanities

P. M. Sanger, B.A. (Melbourne), B.Ed. (Acadia), M.A. (Victoria) - Associate Professor and Head
Parker Cox, B.A. (Acadia), M.A. (Toronto) - Professor Emeritus
B. M. Crouse, B.Sc.(Agr.)(Guelph) - Student Placement Officer
P. A. MacCormick, B.A.(Dalhousie), B.Ed.(Dalhousie), M.B.A.(Dalhousie) - Sessional Lecturer
Rev. D.I. MacEachern, B.A. (Mt. Allison), M.Div. (Pine Hill) - Associate Professor
K. S. Marchant, B.P.Ed. (New Brunswick), M.S. (Springfield) - Associate Professor
L.L. Sanderson, B.Sc.(Agr.)(Guelph), M.Sc. (Guelph) - Assistant Professor
J.M. Smith, B.P.Ed. (Dalhousie) - Assistant Professor

Mathematics and Physics

S.G. Smith, B.Sc. (Mt. Allison), M.Sc. (Windsor) - Associate Professor and Head
D.G. Bishop, B.Eng. (Agr.) (Technical University of Nova Scotia), M.Eng. (Agr.) (Technical University of Nova Scotia) - Associate Professor
R. G. Farmer, B.B.A.(C.C.B), M.B.A. (St. Mary's) - Assistant Professor
I. M. Fraser, B.Sc.(Dalhousie), M.A.(Maine) - Associate Professor and Vice-Principal
C. T. Madigan, B.Sc.(Windsor), M.Sc.(Windsor) - Associate Professor
G. J. Pearson, B.Sc.(Queens), M.Sc.(Queens), B.Ed.(Dalhousie) - Assistant Professor
V. L. Saxon, B.Sc.(Dalhousie), B.Ed.(Acadia), B.Eng.(Nova Scotia Technical College), M.B.A.(Dalhousie) - Associate Professor and Registrar

Plant Science

C.D. Caldwell, B.Sc. (Mt. Allison), M.Sc. (Dalhousie), Ph.D. (East Anglia) - Associate Professor and Head
J.E. Shuh, B.S.A. (Toronto), M.Sc. (McGill) - Professor Emeritus
S.K. Asiedu, B.Sc.(Agr.), M.Sc., Ph.D. (McGill) - Assistant Professor
J.S. Bubar, B.Sc.(Agr.) (McGill), M.S. (Pennsylvania State), Ph.D. (McGill) - Professor
T.M. Choo, B.Sc. (Nat. Taiwan Univ.), Ph.D. (McGill) - Adjunct Professor
W.K. Coleman, B.A., Ph.D. (Western Ontario) - Adjunct Professor
R.W. Daniels, B.Sc. (Agr.) (McGill), M.S. (Michigan State), Ph.D. (Penn. State) - Professor
T.H. Haliburton, B.Sc. (Agr.) (McGill), M.S. (Cornell) - Associate Professor
W.J. Higgins, B.Sc. (Mt. Allison), M.S. in Ed. (Niagara) - Associate Professor
H.-Y. Ju, B.Sc. (Agronomy) (Seoul), M.Sc. (McGill), Ph.D. (McGill) - Associate Professor

L. R. Mapplebeck, B.Sc.(Guelph), M.Sc.(Guelph) - Assistant Professor
T.M. Mullin, B.Sc., M.Sc. (Univ. of New Brunswick) - Adjunct Professor
J. Nowak, M.Sc. (Olsztyn), Ph.D. (Olsztyn), Ph.D. Habil (Olsztyn) - Professor
Y. Papadopoulos, B.Sc. (Guelph), M.Sc. (Guelph), Ph.D. (Guelph) - Adjunct Professor
R.K. Prange, B.Sc. (Acadia), M.Sc. (British Columbia), Ph.D. (Guelph) - Adjunct Professor
R. G. Robertson, B.Sc.(For.)(Aberdeen) - Sessional Lecturer from N. S. Dept. of Lands and Forests

COURSES OFFERED

DEGREE

A complete four-year program leading to a degree in Agricultural Sciences (B.Sc.(Agr.)) is offered with a choice of the following options:

Agricultural Chemistry
Agricultural Economics
Agricultural Mechanization
Agriobiology: Environmental Biology
Agriobiology: Plant Protection
Animal Science
Plant Science
Soil Science

Most students complete their degree at N.S.A.C. but they may still pursue other options without interruption by transferring to the B.Sc.(Agr.) program at Macdonald College of McGill University, the University of Guelph, the University of Maine or the Faculty of Agriculture at another university.

Students who successfully complete the three years of the Agricultural Engineering diploma program can proceed to Macdonald College of McGill University or the University of Guelph to complete their program of study. A two-year engineering diploma program is built into the 3-year program for students proceeding to any specialty at the Technical University of Nova Scotia.

Students who wish to take the two-year Pre-Veterinary program to meet admission requirements of the Atlantic Veterinary College at the University of Prince Edward Island will be counselled in their selection of courses regarding blending of the Pre-Vet program with the options of the B.Sc.(Agr.) program.

TECHNICIAN

The following two-year programs of study are offered:

Agricultural Business
Agricultural Engineering
Animal Science
Farm Equipment
Plant Science

TECHNOLOGY

The following two-year programs of study are offered:

Chemistry Laboratory Technology
Landscape Horticulture Technology

The following two-year programs are offered only to students who have successfully completed one year of a specified Technician Course (or equivalent):

Agricultural Engin.Technology
Farming Technology

Three-year programs are offered in:
Animal Health Technology
Biology Technology
Food Laboratory Technology

Agricultural Technology is a one-year program, tailored to meet the needs of the student. Only Technician graduates are eligible to apply for this course.

SUMMARY OF VOCATIONAL AND CONTINUING EDUCATION PROGRAMS
April 1, 1989 - March 31, 1990

Vocational courses have been designed to assist men and women enter or progress in farm or farm related careers. Forty-four (44) courses were held with 772 persons enrolled, totalling 7,974 student training days.

Employment and Immigration Canada sponsored 207 persons by paying the tuition and a training allowance. Details on enrollment can be seen in the following table.

PROVINCE	NUMBER OF STUDENTS			% OF TOTAL STUDENTS		
	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90
Nova Scotia	533	489	542	75.3	68.1	70.2
New Brunswick	75	98	118	10.5	13.6	15.3
P.E.I.	58	65	46	8.2	9.1	6.0
Newfoundland	29	50	48	4.1	7.0	6.2
Other Residents	13	16	18	1.9	2.2	2.3
Total Number Enrolled:	708	718	772			
Total Number Graduated:	658	684	744			
Total Number Sponsored by C.E.I.C.:	276	236	207			
Total Student Training Days:		804	974			

In conducting these courses, College Staff was supplemented by organizational and lecture assistance, from many sources, with the Nova Scotia Department of Agriculture and Marketing being the major contribution. Guest instructors for many topics are recruited from various federal research stations, other federal and provincial government services, business firms and private entrepreneurs.

VOCATIONAL COURSES:

Meat Cutting
Basic Farrier
Advanced Farrier
Farm Skills I
Farm Skills II
Artificial Insemination
Basic Farm Welding
Co-op Atlantic Course
Introductory Floral Design
Potato Production Technology
Turfgrass Management of Recreational Fields
Preparing Effective Audiovisual Programs
Introductory Farm Accounting
Bedding Plant Production
Dairy Herd Operation
Blueberry Production Course

Computers for Farmers
Landscape Construction
Turfgrass Production
Poultry Production
Vegetable Production for the Organic Market
Floral Design
Landscape Plants: Their Planting and Maintenance
Mink Production
Update on Animal Welfare Issues for Professional Agrologists
Installation of Modular Pavers
Principles and Methods of Weed Control
Weed and Pest Management for Landscapers

CONTINUING EDUCATION COURSES:

Residential Landscape Maintenance
Wordprocessing Using Wordperfect 5.0
Basic Flower Arranging for the Home
Dried Floral Design Workshop
Computer Aided Drafting
Applying Autocad
Wordprocessing Using Wordperfect 4.2
Residential Landscape Maintenance
Introductory Beekeeping

AUTUMN ASSEMBLY

OCTOBER 25, 1989

Autumn Assembly, which is held annually to present awards and scholarships to students, took place on October 25, 1989. Dr. Leslie Ernest Haley was installed as the ninth Principal of N.S.A.C.

GENERAL SCHOLARSHIPS

Canada Scholarship (First Year), $2000
Dawn Daling, R. R. # 1, Scotsburn, N.S.
Jeffery DeHaan, R. R. # 2, Cornwall, P.E.I.
Kimberly Keeping, 25 Brook Street, North Sydney, N.S.
Andrew Mack, Economy, N.S.
Angela Mailman, R. R. # 1, Bridgewater, N.S.
Jennifer Picketts, R. R. # 4, Kensington, P.E.I.
Shelly Pike, Temperance Vale, N.B.
Laura Rogers, Doyles, Nfld.

Canada Scholarship (Second Year), $2000
Kimberley Barteaux, R. R. # 1, Annapolis Royal, N.S.
Suzanne Blatt, R. R. # 1, Kentville, N.S.
Patricia Ryan, Port Au Port, Nfld.

Bravo 500 Plant Protection Scholarship, $1250
Tammy Hill, 115 Small Avenue, Wilmot, P.E.I.

The A. C. Neish Memorial Trust Scholarship, $1200
Linda Jack, 101 Arthur Street, Truro, N.S.

The Nova Scotia Agricultural College Alumni Assoc., $1000
Nancy Murray, R. R. # 9, Moncton, N.B.
Stephen Pickett, R. R. # 4, Perth Andover, N.B.

The Atlantic Fertilizer Institute Scholarship, $1000
Gregory Gerrits, R. R. # 2, Centreville, N.S.

Canada Packers Scholarship, $1000
Kimberly Babineau, Parrsboro, N.S.

The Nova Scotia Institute of Agrologists Scholarship, $1000
Dawn Daling, R. R. # 1, Scotsburn, N.S.

Co-op Atlantic Scholarship, $1000
Anne Drew, Mosher Island, LaHave, N.S.
John Schenkels, Red Bank, N.B.

Nova Scotia Milk Producers Scholarship, $1000
Emma Raghavan, Arichat, N.S.

New Brunswick Institute of Agrologists Scholarship, $1000
Shelly Pike, Temperance Vale, N.B.
Sally Walker, R. R. # 3, Sussex, N.B.

Newfoundland Egg Marketing Board Scholarship, $1000
Rhonda Rumbolt, R. R. # 2, Deer Lake, Nfld.

Supersweet Feeds Scholarship, $1000
Janine Thorne, New Harbour, T. Bay, Nfld.

Hants County Exhibition Scholarship, $1000
Mary Ann Oulton, R. R. # 1, Windsor, N.S.

Woodside Memorial Scholarship, $1000
Holland Cahill, R. R. # 1, Tignish, P.E.I.
Erik ter Beek, R. R. # 1, Winsloe, P.E.I.

The Petro-Canada Youth Leadership Award, $1000
Jane MacLaurin, R. R. # 1, Miscouche, P.E.I.
Angela Mailman, R. R. # 1, Bridgewater, N.S.
Sally Walker, R. R. # 3, Sussex, N.B.

F. W. Walsh Memorial Scholarship, $800
Judy MacMillan, R. R. # 1, Brookfield, N.S.

Hank DeBoer Memorial Scholarship, $500
Crystal Sabean, R. R. # 1, Paradise, N.S.

Atlantic Farm Mechanization Show Scholarship $500
Benjamin Stokdijk, R. R. # 1, Truro, N.S.
Robert Theriault, Arichat, N.S.

The Atlantic Fertilizer Institute Scholarship, $500
Yvonne van Hattem, R. R. # 2, Berwick, N.S.

The Ernest L. Eaton Memorial Scholarships, $500
Anne Drew, Mosher Island, LaHave, N.S.
John Schenkels, Red Bank, N.B.

Women's Institute Scholarship, $500
Anne Drew, Mosher Island, LaHave, N.S.

Newfoundland Milk Marketing Board Scholarship, $500
Laura Rogers, Doyles, Nfld.
Connie Strang, Lawn, P. Bay, Nfld.

New Brunswick Poultry Council Scholarship, $500
Mark Wallace, 46 Prince Street, Yarmouth, N.S.

The G. E. O'Brien Memorial Award, $500
Anne Drew, Mosher Island, LaHave, N.S.

The Vice-Principal's Scholarship, $500
Lori Schofield, Windsor Forks, N.S.

Col. Charles H. Coll Memorial Scholarship, $500
Steven Eadie, R. R. # 2, Antigonish, N.S.

H. A. L. McLaughlin Memorial Scholarship, $500
Nancy Spear, 143 Ryland Avenue, Truro, N.S.

The Canadian Feed Industry Assoc. (Atlantic Division) Scholarship, $400
John Schenkels, Red Bank, N.B.

Cobequid Dog Club Scholarship, $400
Michelle Willis, New Glasgow, N.S.

N. S. Federation of Agriculture Scholarships, $300
Pamela MacKay, 188 Lacewood Drive, Halifax, N.S.
Ronda Noiles, 123 Caldwell Road, Dartmouth, N.S.

Ira L. Rhodenizer Memorial Scholarship, $300
Susan Simpson, Amherst, N.S.

The Donald E. Clark Memorial Scholarship, $600
Trevor Bagnell, 48 Burris Drive, Truro

Atlantic Provinces Hatchery Federation Scholarship, $300
Jane Corkum, 5774 Ogilvie Street, Halifax, N.S.

A. B. Banks Memorial Scholarship, $250
Sarah Noble, 47 Hazelholme Drive, Halifax, N.S.

Atlantic Provinces Hatchery Federation Scholarship, $200
Angeline Roberts Forbes, R. R. # 1, Bass River, N.B.

The A. W. Mackenzie Memorial Scholarship, $150
Susan Simpson, Amherst, N.S.

The Wilfred Cyr Memorial Scholarship, $100
Angeline Roberts Forbes, R. R. # 1, Bass River, N.B.

Bruce Trenholm/Atlantic '86 Scholarship
Larry Nason, Tracy, N.B.

The Dorothy Creelman Cox Scholarship
Kimberly Barteaux, R. R. # 1, Annapolis Royal, N.S.

The Dr. Kenneth Cox Scholarship
Christopher Dunbar, R. R. # 2, Alberton, P.E.I.

PROVINCIAL SCHOLARSHIPS

NOVA SCOTIA

$1500
Dawn Daling, R. R. # 1, Scotsburn
Kimberly Keeping, 25 Brook Street, North Sydney
Andrew Mack, Economy

$1000
Suzanne Blatt, R. R. # 1, Kentville
Holly Chetwynd, R. R. # 1, Kemptville
Tanya Corbin, Berwick
Catherine Creighton, R. R. # 2, Windsor Junction
P. Daniel Davison, R. R. # 2, Falmouth
Anne Drew, Mosher Island, LaHave
Brian Faber, R. R. # 1, Debert
Wendy Faulkner, 22 Barry Avenue, Truro
Linda Jack, 101 Arthur Street, Truro
Jennifer MacDougall, 44 Grandview Street, Sydney
Pamela MacKay, 188 Lacewood Drive, Halifax
Angela Mailman, R. R. # 1, Bridgewater
Duncan McCurdy, R. R. # 1, Truro
Alanna Murray, R. R. # 2, Scotsburn
Sarah Noble, 47 Hazelholme Drive, Halifax
Douglas Perry, R. R. # 1, Brookfield
David Pierik, R. R. # 3, Canning
Emma Raghavan, Arichat
Craig Redden, R. R. # 4, Middle Musquodoboit

Robert Theriault, Arichat
Nadine Trudeau, 10 Wallingham Street, Dartmouth
Andrew Weatherbee, 360 Truro Heights Road, Truro

$500 Trevor Bagnell, 48 Burris Drive, Truro
Jean Baillie, R. R. # 2, River John
Kimberly Barteaux, R. R. # 1, Annapolis Royal
Patrick Cox, 5 Henry Street, Truro
Hugh MacDonald, Thorburn
Samantha Meehan, 72 LaPierre Crescent, Dartmouth
William Neily, R. R. # 2, Middleton
Darren Robinson, Town Road, Falmouth
Lori Schofield, Windsor Forks
Allan Stewart, R. R. # 6, Truro
James Wall, R. R. # 5, Tatamagouche

$200 Mary Hallett, 935 Young Avenue, Halifax
Lewis Powell, 15 Dawn Street, Fairview
Nancy Spear, 143 Ryland Avenue, Truro

NEWFOUNDLAND

$700 Laura Rogers, Doyles
Kimberley Thomson-Kerr, St. John's
Kyla Slaney, Mooring Cove

BURSARIES

Farm Credit Corporation Bursary, $1000
Barbara Whiston, Truro, N.S.

Beaver Foods Limited Bursaries, $500
Susan Appt, R. R. # 1, Westfield, N.B.
Tracy Johnston, R. R. # 3, Hampton, N.B.

Bravo 500 Technology Bursary, $500
Dale MacPhee, R. R. # 1, Elmsdale, N.S.

David W. Brown Bursary, $500
Dianne Stevens, Western Shore, N.S.
Yvonne van Hattem, R. R. # 2, Berwick, N.S.

Ray Webber Memorial Award, $300
Mary Hallett, 935 Young Avenue, Halifax, N.S.

Dr. Robert G. Rix Family Farm Bursary, $300
Carter Duchesney, Baddeck, N.S.

Farm Focus Bursary, $200
Karen Sheehan, R. R. # 4, Souris, P.E.I.

The Edith Main Memorial Bursary, $100
Jennifer Van der Kooi, R. R. # 1, Elmsdale, N.S.

Kings County Federation of Agriculture Bursary
Nancy Eaton, R. R. # 1, Port Williams, N.S.

PRIZES

N. S. Veterinary Medical Association Prize, $300
Dale MacPhee, R. R. # 1, Elmsdale, N.S.

G. G. Smeltzer Award, $100
Nancy Spear, 143 Ryland Avenue, Truro, N.S.

The Roy H. Stevenson Prize in Mathematics & Physics, $250
Sarah Noble, 47 Hazelholme Drive, Dartmouth, N.S.

The Lorne C. Callbeck Prize, $50
Anne Drew, Mosher Island, LaHave, N.S.

The H. J. Fraser Memorial Prize in English
Suzanne Blatt, R. R. # 1, Kentville, N.S.

Canadian Society of Animal Science Prize
Duncan McCurdy, R. R. # 1, Truro, N.S.

ATHLETICS IN REVIEW

MEN'S BASKETBALL

The N.S.A.C. men's basketball team went through another re-building year. Expecting four of five starters back from the previous year, only one returned in the person of Steve Chiasson. The only other returning players were Aaron Sweeney and Mark Hatcher. First year players included Steve Murley from New Glasgow, who was one of the top rookies in the league. Also, Wade Brockway a transfer from Dalhousie and a member of the N.S. Canada Games team joined our club. Wade was voted to the All-Conference Team and was 10th in league scoring. Other first year players were Winston Visser and Charles Briggs. Things were touch and go before Christmas as we only had seven players. After Christmas three other players joined the ranks in the persons of Kevin Anderson from Petitcodiac, David Walker from Digby and Scott Masters from Truro. This made things a little easier and gave us some bench. Although 1-19 in league play, the team had some close games against all teams. Our trip to the UNB Saint John Tournament was successful as the Rams won the tournament beating UNB in the first round and beating Bethany in the final.

All players are expected back for another year and with 3-4 new players AC should have a shot at the play-offs next year.

MEN'S VOLLEYBALL

The men's volleyball team initially expected to have an exciting year as four starters were back, with 3 being seniors - Reg Wade, Shawn Taylor and Shawn Smale. The other experienced player was Dennis Doherty. Rounding out the starting line-up were Andrew Myers and Bentley Webb. The team alternate was Jeff Sparkes. The team was once again co-coached by Steve Myette and Fred Fergus.

The Rams finished in fourth place in league play and drew UCCB in the play-off semi-final and lost in straight games. Reg Wade and Dennis Doherty were recognized for the skill level in being voted to the All-Conference Team.

The Athletic Department extends its thanks to Reg, and the two Shawns for their dedication on contribution to the athletic program at N.S.A.C. We wish them the best.

BADMINTON

Dr. Gordon Brewster and N.S.A.C. Rams Badminton team had a re-building year. Four rookies joined returnees John Bowness, Ann Gillis, Chris Atwood and Chris Dunbar. Wearing the blue and gold for the first year were Deanne Simms, Suzie Blatt, Andrew Bourque and Matthew Horne.

During league competition the teams finished in ranking order:

Ladies Singles	1st place
Ladies Doubles	2nd place
Men's Doubles	3rd place
Mixed Doubles	3rd place

During the championship competition held at UCCB, the Rams ended in fourth place. Congratulations to Chris Atwood in receiving his fourth year varsity award.

HOCKEY

The N.S.A.C. Varsity Rams played in the West Colchester Intermediate League. The team played a 24 game schedule and finished fourth in the league. The Rams drew league winner Schneiders in the first play-off and fell to their opponents in three straight games. Tom van Oirschot again coached the team and was ably assisted by David Langille.

WOODSMEN

Again, this year the Woodsmen comprised of three teams - 2 men and 1 women. The teams competed in four meets out of province and completed the season in hosting their own competition. The Rams competed in meets at UNB,

Macdonald, Flemming and Unity. Rick Russell and David Weatherhead again coached the team.

The teams did well in all competitions by finishing in the top ten. The team topped the season by winning the N.S.A.C. competition.

WOMEN'S SOCCER

The season ended abruptly for the girls when they lost 6-0 to MSVU in the semi-final of the NSCC Championship. The score was not, however, indicative of the play as the girls had a fair percentage of the play but failed to capitalize on numerous good scoring chances.

The girls finished the season in 4th place with MSVU in 1st, Kings in 2nd, and TUNS in 3rd.

Our "speedy gonzales" Jean Baillie was awarded All-Conference Honors along with the Gerry LeBlanc Award as the most valuable all-round player in the league. A fitting finish to an excellent soccer career at NSAC. There will be a number of girls returning for next fall's season so with a few keen rookies the future looks good for women's soccer.

MEN'S SOCCER

The soccer team finished their league schedule on a positive note with season ending 3-0 win over the Coast Guard College. It was the best game the team played all season and what they needed to lift their spirits in what was a mediocre year. The win also avenged an earlier 1-0 loss to the mid-shipmen. The win further determined the third and fourth play-off positions for the league. Ben Vos, Ron Wesselius and John Schenkels did the scoring for the Rams and Jeff Van de Riet earned the shut-out in his last game to be played in our NSAC uniform.

In all-conference selections, Simon Matoto and Albert Wesselius were selected to the dream team.

Special awards:

ATHLETE OF THE YEAR

Women	Jean Baillie
Men	Jeff Van de Riet
	Shawn Smale

MOST VALUABLE PLAYERS

Soccer	Jean Baillie
	Ben Vos
Woodsmen	Margo White
	Carmen Kelly

Basketball Wade Brockway

Volleyball Dennis Doherty

Hockey Kris Nichols

PRINCIPAL'S LIST

On Monday, March 5th, Dr. L.E. Haley entertained 48 students of the Nova Scotia Agricultural College at a dinner given in their honour at the Riverview Room. The Principal's List honours those students who have achieved academic excellence at the College.

The guest speaker was Dr. Gordon MacEachern, Deputy Minister of Agriculture for Province of Prince Edward Island.

Each student was presented with a plaque in recognition of his/her achievement.

David W. Abbott, Campbell River, B.C.
Susan E. Appt, Westfield, N.B.
Jean A. Baillie, River John, N.S.
Kimberly M.L. Barteaux, Annapolis Royal, N.S.
Suzanne E. Blatt, Kentville, N.S.
Andrew P. Boyer, Yarmouth, N.S.
Lisa M. Brushett, Truro, N.S.
Douglas A. Conrad, Dartmouth, N.S.
Catherine M. Creighton, Windsor Junction, N.S.
Emily Y. Curtis, North Sydney, N.S.
E. Anne Drew, LaHave, N.S.
Carter T. Duchesney, Baddeck, N.S.
Leigh Ann Egan, Sydney, N.S.
Arlene K. Ells, Canning, N.S.
Wendy L. Faulkner, Truro, N.S.
Gregory J. Gerrits, Centreville, N.S.
Mary E. Hallett, Halifax, N.S.
Tammy L. Hill, Wilmot, P.E.I.
Linda C. Jack, Truro, N.S.
Abdullahinur S. Kassim, Narok, Kenya
Michelle D. Langille, Truro, N.S.
Pamela L. MacKay, Halifax, N.S.
Sharon M. MacLean, River John, N.S.
Catherine M. MacLeod, Cleveland, N.S.
Deanna C. MacLeod, Porter's Lake, N.S.
H. Darlene MacNeil, St. Peter's, N.S.
Peter B. McCabe, Charlottetown, P.E.I.
Duncan S. McCurdy, Truro, N.S.
Shawna M. Melanson, Stellarton, N.S.
Judith N. Mutea, Ngong Hills, Kenya

Larry M. Nason, Tracy, N.B.
William G. Neily, Middleton, N.S.
Brian R. Newcombe, Port Williams, N.S.
Sarah J. Noble, Halifax, N.S.
David J. Pierik, Canning, N.S.
Crystal E. Pushie, West River Station, N.S.
Emma S. Raghavan, Arichat, N.S.
Gerard J. Richard, Miscouche, P.E.I.
Kate V. Robertson, Charlottetown, P.E.I.
Laura A. Rogers, Doyles, Nfld.
Patricia A. Ryan, Port au Port, Nfld.
John W. Schenkels, Red Bank, N.B.
Lori D. Schofield, Windsor Forks, N.S.
Jane M. Schule, New Glasgow, N.S.
Karen A. Sheehan, Souris, P.E.I.
A. James Wall, Tatamagouche, N.S.
Andrew J. Weatherbee, Truro, N.S.
Myles A.S. Whitaker, Portugal Cove, Nfld.

CONVOCATION

The Convocation Exercises were held on Friday, May 4, 1990 at the Athletic Centre. The Convocation address was given by Margaret McCain, B.A., B.S.W., Chancellor, Mount Allison University. The winners of the Governor-General's Medals were: Linda Jack, Degree Student and Mary Hallet, Technical Student. Other awards were presented to Duncan McCurdy and Bernhard Vos, Atlantic Provinces Swine Producers' Awards; Angeline Roberts-Forbes, Ketchum Manufacturing Company Ltd. Prize; Mary Hallett, K. DeGeus Memorial Prize for Plant Science. The valedictory address was delivered by Jean Baillie.

BACHELOR OF SCIENCE IN AGRICULTURE DEGREES

AGRICULTURAL CHEMISTRY

Jeffrey Michael van de Riet.....Shubenacadie, N.S.
Arthur James Wall - Honours.....Tatamagouche, N.S.

AGRICULTURAL ECONOMICS

Cheryl Ann Archibald.....Truro, N.S.
Marcel Levis Gallant.....Grand-Dique, N.B.
Rose Makunzo Mwangi - High Honours.....Mombasa, Kenya
Barbara Elizabeth Whiston .....Truro, N.S.
Horace Brian Willis.....Cornwall, P.E.I.

AGRICULTURAL MECHANIZATION

Gerald Joseph Richard.....St. Louis, N.B.

AGRICULTURAL SOILS

Catherine Marie MacLeod.....Cleveland, N.S.
Lori Dawn Schofield - Honours.....Windsor Forks, N.S.

ANIMAL SCIENCE

Corinne Mary Helen Boutilier.....Sydney, N.S.
Thomas Charles Byers.....Belleisle Creek, N.B.
Leslie Cecilia Campbell.....Kentville, N.S.
Mary Jane Corkum.....Halifax, N.S.
Steven Lloyd Eadie.....Antigonish, N.S.
Leigh Ann Egan.....Sydney, N.S.
Wendy Lynn Faulkner - Honours.....Truro, N.S.
Arden Linwood Gardiner.....River Hebert, N.S.
Kyra Leigh Larkin.....Lower Sackville, N.S.
Suzanne Marie Maxwell.....Newport, N.S.
Andrew William McCurdy.....Truro, N.S.
Duncan Scott McCurdy - High Honours.....Truro, N.S.
Lisa Ann McNiven.....Trenton, N.S.
Tracey Gail McRae - Honours.....Truro, N.S.
Kris Andrew Nicholls - Honours.....Fredericton, N.B.
Joseph Shawn Smale.....Kingston, N.S.
Cindy Lee Tetford - Honours.....Harbour Grace, Nfld
Reginald Robert Wade.....Granville Ferry, N.S.
Margot Blanche White.....St. John's, Nfld

PLANT PROTECTION

Christopher Robert Atwood.....Westville, N.S.
Carmella Bordage.....Truro, N.S.
Charles Arthur Dentelbeck.....Grimsby, Ont.
Tammy Leigh Hill - Honours.....Wilmot, P.E.I.
Marc Roger Joseph King.....Richibucto Village, N.B.
Judith Nguta Mutea.....Ngong Hills, Kenya
Darren Kevin Robinson.....Falmouth, N.S.

PLANT SCIENCE

Jean Arlene Baillie - Honours .....River John, N.S.
Paul Anthony Bosveld.....Kentville, N.S.
John Wayne Bowness.....Alberton, P.E.I.
Lisa Marie Cody.....Windsor, N.S.
Christopher Lloyd Dunbar.....Alberton, P.E.I.
Linda Christene Jack - High Honours.....Truro, N.S.
Elizabeth Chebett Lang'at.....Kericho, Kenya
Mark Anthony MacPhail.....Bonshaw, P.E.I.
Dwayne Joseph MacNeill.....Wellington Centre, P.E.I.
William Godfrey Neily - Honours.....Middleton, N.S.
Jock Michael Peill.....Canning, N.S.
Anthony Clayton Smith.....Truro, N.S.
Russell Andrew Keith Willis.....Cornwall, P.E.I.

ENGINEERING DEGREE - DIPLOMA

Jacob Thottan Anthappan.....India
Trevor William Bagnell - Honours.....Truro, N.S.
Roy R. Mangope.....Mahalapye, Botswana

AGRICULTURAL ENGINEERING DEGREE - DIPLOMA

David Nganga Kamau.....Thika, Kenya
Rejoice Tsheko.....Gaborone, Botswana

TECHNICIAN DIPLOMAS

AGRICULTURAL BUSINESS

David Layton Huestis.....Summerside, P.E.I.
Nancy Mae Keddy - Honours.....Aylesford, N.S.
Jacqueline Kennedy.....Antigonish, N. S.
Lynda Ann Lamb.....Clifton Royal, N.B.
Calvin Wendell MacIntosh.....Aspen, N.S.
Mark Andrew Reid.....Truro, N.S.
Roelof Harm van Cingel.....Upperkent, N.B.
Bernhard Johan Vos.....Hunter River, P.E.I.
Margaret A. Wheaton.....Sackville, N.B.

ANIMAL SCIENCE

April Anne Haliburton.....Truro, N.S.
Garry William Hart.....Newport, N.S.
Troy Allan Hiltz.....New Ross, N.S.
Crystal Elizabeth Pushie.....West River Station, N.S.
Lisa Anne Quartermain.....Hoyt, N.B.
Angeline Marie Roberts-Forbes -Honours.Bass River, N.B.
Craig Allen Smith.....Lower Coverdale, N.B.

FARM EQUIPMENT

Kim Alun Jones.....Middle Musquodoboit, N.S.

PLANT SCIENCE

Cynthia Maria Bekkers.....Porter's Lake, N.S.
Carol Joyce Culleton.....Summerside, P.E.I.
Donald Darren Fisher.....Brookfield, N.S.
Terralee Evangaline Gignac.....Halifax, N.S.
Sheldon Todd Harper.....Bras d'Or, N.S.

Sandra Lee Lovean.....Fredericton, N.B.
Shellie Anne McLearn.....Mount Uniacke, N.S.
Larry Michael Nason - Honours.....Tracy, N.B.
Brian Russell Newcombe - Honours....Port Williams, N.S.
Michelle Beth Northrup.....Apohaqui, N.B.
Trevor Scott Rath.....Truro, N.S.
Nancy Mae Spear - High Honours.....Truro, N.S.
Malcolm Scott Steeves.....Moncton, N.B.

DIPLOMAS OF TECHNOLOGY

AGRICULTURAL TECHNOLOGY

Dale Eugene MacPhee.....Elmsdale, N.S.
Frank Bruce Smith.....Woodstock, N.B.
Steven Ralph Wright.....Charlottetown, P.E.I.

BIOLOGY LABORATORY TECHNOLOGY

Emily Yvonne Curtis - High Honours...North Sydney, N.S.
Sheldon Bain Fraser.....Hopewell, N.S.
Ann Marie MacIsaac.....Inverness, N.S.
Charles Todd MacSween.....Sydney, N.S.
Nancy Dawn Montgomery.....Summerside, P.E.I.
Ronda Jean Noiles - High Honours.....Dartmouth, N.S.
Beth Christine Richard.....Cleveland, N.S.

CHEMISTRY LABORATORY TECHNOLOGY

Nicole Marie Ball.....North Sydney, N.S.
Joanne Nichols Blynn.....Woods Harbour, N.S.
Dianne Elise Stevens.....Western Shore, N.S.
Mary Jane Whittaker.....Eastern Passage, N.S.

FARMING TECHNOLOGY

Hubert Johannes Duivenvoorden.....Sussex, N.B.
Momodou S. Jeng - High Honours.....Brikama, Gambia

LANDSCAPE HORTICULTURE TECHNOLOGY

Kevin John Britt - High Honours.....Saint John, N.B.
Douglas Alexander Conrad - Honours.....Dartmouth, N.S.
Carter Trent Duchesney - Honours.....Baddeck, N.S.
Marilyn Marie Duchesney - Honours.....Baddeck, N.S.
Mary Elizabeth Hallett - High Honours.....Halifax, N.S.
Ardith Ida MacKay - High Honours.....Scotsburn, N.S.
Robert Edward Whitelaw - Honours.....Truro, N.S.

DISTINCTION AWARDS:

SILVER - Susan E. Appt, Westfield, N.B.

BRONZE - Mary Jane Corkum, Halifax, N.S.
Bernard H. Gallant, Grand Digue, N.B.
Reginald R. Wade, Granville Ferry, N.S.

NOEL ENMAN MEMORIAL AWARD: Troy A. Hiltz, New Ross, N.S.

MacRAE LIBRARY

The N.S.A.C. Library became the MacRae Library at an official naming ceremony following Convocation May 4, 1990, to honour the achievements of Dr. Herbert F. MacRae, Principal of N.S.A.C. 1972-1989.

The importance of Dr. MacRae's leadership during his 17 years as principal is acknowledged by all. The library was an important early step in broadening the academic capability of the College.

Both the institution and Dr. MacRae are very proud of the quality of the building and recognize it as being central to the teaching, research and service activities of N.S.A.C.

It is most fitting that the library was chosen to bear the name of this distinguished principal.

LIBRARY REPORT

REFERENCE DEPARTMENT

The Reference Department offered full reference services to faculty, students, staff and associates of the N.S.A.C., N.S.D.A.M. and to the public who had needs related to agriculture. Summer student Jean Withers worked with Prof. Peter Sanger preparing displays for Open House and processing materials for Archives. She also worked on several bibliographies. CD-ROM access to the AGRICOLA database, according to Plant Science faculty, has noticeably improved the quality of references in fourth year projects. A total of 125 people, trained to search the CD-ROM databases, accounted for 720 search sessions. In May '90 CABCD (CAB Abstracts on CD-ROM) was added to the reference collection. Joanne Campbell has had less difficulty keeping up with the interlibrary loan workload since a microcomputer was located in the ILL office. Further productivity improvements are expected when the manual log for ENVOY 100 messages is automated using dBase III. Government documents (cataloguing, processing, database updating) continues to be a major bottleneck.

ACQUISITIONS DEPARTMENT

Linda Butler-Fox resigned from her position in June, 1989. Marilyn Foote replaced Linda as Head of the Acquisitions Department on September 5, 1989. Mrs. Bonita Belliveau joined as full time casual in July, 1989 and worked till May 31, 1990.

The Department has been run very efficiently and smoothly.

The revised and updated "Serials List" was published in April, 1990. It is an annual publication.

CATALOGUING DEPARTMENT

This Department continues to be staffed by one person only. Vaila Mowat is the Head of this Department. She has done a great job with the cataloguing needs of the whole Library. She has done extensive cataloguing of audiovisual materials.

She is working on a union list of videos held in various offices of the N.S. Dept. of Agriculture and different departments of the NSAC.

LIBRARY COMMITTEE

The Library Committee took an active interest in the operation of the Library services. The Committee met four times during the period covered by this report.

The task of the Periodical Survey, which was started last year, was finished during this year.

The Sub-Committee on Books and Periodicals helped to prepare the Budget allocation for books and periodicals for April 1, 1990 - March 31, 1991 (Dr. B. Gray, Chairman; Dr. N. Rifai; Bonnie Waddell and B. Sodhi).

The Sub-Committee on the Library Budget members are Dr. B. Gray, Chairman; Prof. Carl Madigan; B. Waddell and B. Sodhi.

The Library Funding Committee members were as follows:

Prof. Bonnie Waddell, Chairperson
Prof. Peter Sanger
Prof. Jim Hawley
Prof. Bruce Gray
Prof. Nigel Firth
Prof. Nabil Rifai
one student

This Committee has done a fantastic job, not only during the period covered by this report, but from the day it came into being. Most of the credit goes to Prof. Waddell.

Many activities to promote the Library and highlight the needs of the Library were undertaken. The major achievement is the establishment of the Library Trust Fund. The Alumni Breakfast held during the 1989 Open House was a blockbuster.

LIBRARY STATISTICS
April 1, 1989 - March 31, 1990

Categories		
1.	Books Acquired	
	Books Purchased	884
	Books Free	174
	TOTAL	1,058
2.	Current Periodicals	817
3.	Binding	
	Periodicals	783
	Books	91
	TOTAL	874
4.	Cataloguing	1,182
5.	Circulation of Main Collection	11,011
	Circulation of Textbook Reserve	1,712
	Circulation of Faculty Reserve	2,073
6.	Visitors to the Library	49,474
7.	Interlibrary Loans	
	(a) Books Borrowed	332
	(b) Books Loaned	75
	(c) Photocopies Obtained	1,388
	(d) Photocopies Sent	288
8.	Reference Department Activities	
	(a) Publications	11
	(b) Workshops	15(119 people)
	(c) Tours	42(358 people)
	(d) Reference Questions	197
	(e) Instruction Sessions	110
	(f) Referrals	6
	(g) Online Information Search Requests	37
	(h) Online Searches Prepared	68(on 106 databases)
	(i) Documents Catalogued	142
	(j) Documents Added (vols.)	926

RESEARCH PROJECTS

Research Projects were funded from a number of sources. Some of these were at the discretion of the Research and Innovative Demonstration Committee while others were the result of individual initiative. A number of investigative projects are not included. The fund sources are as follows and may or may not be included in these statistics.

Source	Funds
N.S. Dept. of Agriculture and Marketing	271,881.
Atlantic Livestock Feed Initiative (ALFI)	592,986.
Canada-Nova Scotia Agri-Food Development Agreement (AFDA)	290,570.
National Sciences and Engineering Research Council (NSERC)	127,949.
Outside Research Grants	166,278.
Outside Research Contracts	129,277.
Agricultural Research Institute (ARI)	6,531.
Atlantic Poultry Research Institute	40,266.
Other Research Institutes	25,412.
Total all sources	$1,651,150.

1989 RESEARCH PROJECT REPORTS (BY DEPARTMENTS)

Project Number	Project Leader	Project Title
Agricultural Engineering		
89-124	D. A. Allen	Poultry Ventilation
89-146	A. Madani	An Estimation Method For The Saturated Hydraulic Conductivity
89-147	P. Havard	Low Temperature Bath With Programmable Control
89-157	A. Madani	Evaluation of Lysimeters Performance
Animal Science		
89-110	D. M. Anderson	Water Quality For Pigs
89-122	T. Tennessen	Space Use By Stall Housed Calves
89-135	D. L. Patterson	Swine Conformation and Relation to Carcass Composition
89-136	E. G. Maynard	Fox and Mink Production
89-140	A. H. Fredeen	Mastitis Prevention in Dairy Cows
89-141	A. H. Fredeen	Calcium and Magnesium Absorption, Metabolism and Interactions

89-145	A. Lirette	Effect of Different Dietary Fibers on Plasma Cholesterol, Fat Deposition and Egg Cholesterol Content in Layer Chickens
89-152	D. L. Patterson	Image Analysis of Beef Cow Conformation
89-153	L. M. Cock	Animal Evaluation of Forage Quality
89-158	D. C. Crober	Environment Enrichment and Layer Performance
89-159	D. M. Anderson	Herring By-Product For Mink
89-160	A. H. Fredeen	Body Fat and Rate of Gain on Dairy Cow Performance

Biology

89-52	M. G. Sampson	Herbicide-Pathogen Interactions in Quackgrass
89-148	A. B. Gray	Collar Rot of Apple Rootstock
89-154	J.-P. R. LeBlanc	Population Structure and Management (IMP) of the European Earwig
89-155	L. J. Eaton	Effects of Herbicides and Fertilizers on Blueberries

Chemistry-Soils

89-118	G. R. Brewster	Sediment Clogging in Nova Scotia Drainage Tiles
89-121	A. R. Robinson	Analysis of Meat and Meat Products by Gel Electrophoresis
89-129	A. R. Robinson	The Effect of Omega-3 Fatty Acids in Laying Hens
89-142	J. Hoyle	A Rapid Analysis For Agricultural Ethylene
89-149	G. R. Brewster	Soil Erosion Determination from ^{137}Cs Analysis
89-156	P. Warman	Manure Effects Soil Compaction and Timothy Growth

Plant Industry Branch

89-111	D. Doohan	The Biology and Control of Coltsfoot
89-151	D. Mellish	Cereal Row Spacing and Seeding Rate

Plant Science

89-06	J. S. Bubar	Cereal and Protein Crops
89-07	J. S. Bubar	Forage Crops
89-24	T. H. Haliburton	Vegetable Variety/Management Trials
89-30	H.-Y. Ju	American Ginseng Production in N.S.
89-46	R. W. Daniels	Turfgrass Evaluation and Management
89-96	J. Nowak	Somatic Embryogenesis in Red Clover
89-123	J. Nowak	Hydroxyproline Resistance, a Selection Method for Developing Winter Hardy Alfalfa
89-127	H.-Y. Ju	Effect of Plant Growth Regulators on Fruit Set and Yield on Lowbush Blueberry
89-138	J. Nowak	Polyamines in Somatic Embryogenesis of Red Clover

89-139	C. D. Caldwell	Effect of Nitrogen on Semi-Dwarf Barley Canopy and Yield Development
89-144	S. K. Asiedu	Water Potential Effect on Population Dynamics of PGPR
89-150	L. R. Mapplebeck	Poinsettia Production Problems

PUBLICATIONS

Referred Journals

Eaton, L.J. and Patriquin, D.P. 1990. Fate of labelled fertilizer nitrogen in commercial lowbush blueberry stands. Can. J. Soil Sci. 70 (in press).

Fredeen, A.H. 1989. Effect of maturity of alfalfa (Medicago sativa) at harvest on calcium absorption in goats. Can.J. Anim. Sci. 69:365-371.

Fredeen, A.H. and VanKessell, J.S. 1990. Effect of sudden loss of calcium from the exchangeable calcium pool on bone calcium resorption in mature sheep. Can.J.Anim.Sci. 70:xxx-xxx.

Fredeen, A.H. 1990. Effects of calcium loss and high dietary calcium and potassium on calcium kinetics and magnesium balance in sheep fed low magnesium diets. Can.J.Anim.Sci. 70:xxx-xxx.

Grant, K.G. 1989. The impact of quotas on the optimal adjustment of milk production at the farm level: a comment. European Review of Agricultural Economics. 16(4):515-522.

Wardrop, E.A., Gray, A.B. and Singh, R.P. 1989. Aphid transmission of potato virus S in elite seed potatoes. Amer. Potato J. 66:449-459.

Boivin, G., Le Blanc, J.-P.R., and Adams, J.A. 1990. Spatial dispersion and sequential sampling plan for the tarnished plant bug, Lygus lineolaris (P. de B.)(Hemiptera: Miridae), on celery. J. Econ. Entomol. (in press)

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Lirette, A. and Milligan, L.P. 1990. Endoscopic technique to follow the mixing and breakdown of colored forage particles in the rumino-reticulum of cattle. Can.J.Anim.Sci. 70:219-226.

Lirette, A., Milligan, L.P., Cyr, N. and Elofson, R.M. 1990. Buoyancy separation of particles of forage, feces, and ruminal contents and nuclear magnetic resonance examination. Can.J.Anim.Sci. (in press).

Lirette, A. 1990. Buoyancy separation of ground forage particles and evaluation of ground White Clover particles as feed additive to mice. (Submitted to the Can.J.Anim.Sci.).

Lirette, A., Robinson, A.R., Crober, D.C. and Lawson, P.D. 1990. Effect of oat bran, cotton seed hulls and guar gum on egg yolk cholesterol concentrations, plasma lipids and production parameters in layer chickens. (Submitted to the Poultry Science).

Lirette, A. 1990. A new endoscopic technique to observe rate of flow and breakdown of rumen particles using coloured stems. Agrologist (Summary).

Lirette, A. and Firth, N.L. 1989. (Editors). Department of Animal Science Annual Report, N.S.A.C. 1988-89. Volume 2.

Lirette, A., Fraser, Joanna, Maynard, E.G. and MacIntyre, J.P. 1990. ALFI Interim Report. Study of legume based haylages for animal production. N.S.

Olson, A.R. 1990. Observations on the floral shoots of Monotropa hypopitys L. (Monotropaceae). Rhodora 92: 54-56.

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Stratton, G.W. May 1990. Acadia University. Public seminar entitled: An introduction to ecotoxiocology - what you don't know can hurt you.

COLLEGE FARM

The College Farm provides teaching, research and demonstration facilities and materials for all Departments within the College, particularly the Department of Animal Science. The Farmstead Planning Committee and the Department of Animal Science have been actively planning for new and remodelled livestock facilities on the College Farm, as our present facilities are being taxed to their limit.

The College Farm which consists of approximately 210 hectares (518.7 acres) of upland, interval, marshland and woodlands provides all the forage needs for the farm. Approximately 80 hectares (197.6 acres) of forage were grown and harvested specifically for nutrition trials. A summary of the crops grown during 1989 are as follows:

Crop	Hectares	(Acres)
Research Plots	7	(17.29)
Annual Ryegrass	10	(24.7)
Legume Forage	71	(175.37)
Grass Forage	43	(106.21)
Corn Silage	4	(9.88)
Improved Pasture	27	(66.69)
Cultivated Pasture	20	(49.04)
Barley	15	(37.05)
Woodland	13	(32.11)
Total	210	(518.34)

Twenty student research projects and twelve faculty research projects used the livestock and poultry facilities during the year.

Beginning and year end inventories remained fairly steady as indicated below:

SPECIES	April, 1989	March, 1990
Beef cattle	162	140
Dairy cattle	98	94
Sheep	167	253
Swine	440	400
Foxes	136	112
Mink	96	102
Horses	4	11
Poultry	4785	3645

SUMMER CONFERENCES

A very brief summary of our 1990 Conference program is as follows:

	1990	1989
Number of groups	51	32
Number of participants	50,503	3,200

The above represents a total of 18,200 conference bed nights	18,200
Added to this there were approximately 3,950 bed nights used for casual visitors, Potatoes Production Technology and summer residents	3,950
Approximate Total Bed Nights	22,150

Several organizations that stayed at NSAC for the first time included:

Anglican Diocese Servers
Salvation Army Youth
C.G.I.T.
YMCA Youth
N.S. Teachers Union
N.B. Young Agriculturists
A.A.C.U.S.S.
NAREA/ACEE (Economists)
Greco Management
Friends of the Pliestocene
Atlantic Future Dairymen

In addition to the conference program the following numbers of groups visited the campus for tours to specific departments, the farm complex or full campus tours.

	1990	1989
Number of tours	91	88
Total number of people	2,700	2,400

Conference revenue showed an increase over 1989. Finalized figures will be presented in the 1990 Conference evaluation notes when all overheads have been received and calculated.

SPECIAL EVENTS

College Royal '89

"Have You Heard About College Royal '89" was the theme for College Royal '89 - October 31 - November 5, 1989.

Winter Carnival

"Welcome to the Snow Zone" was the theme this year for Winter Carnival, which was held from January 23 - January 28. The Co-Chairpersons were Dennis Doherty and Steve Alward.

SEMINARS

May 12, 1989	37 Years of Crisis - G. Don Palfrey
May 26, 1989	Nova Scotia Model Orchards - Gordon Kinsman
June 5, 1989	Selecting Oat Lines For Use In Low Productivity Environments - Dr. Gary Atlin
June 9, 1989	The Effect of Genotype and Environment on Tillering Pattern in Spring Wheat - Dr. Pierre Hucl
June 9, 1989	Pulpwood, Corn and the Three A's of Crop Yield Improvement - T.J. Mullin
June 23, 1989	Agriculture and Agricultural Information at the College of Agriculture, Jamaica - Ernie Maynard and Bonnie Waddell
July 7, 1989	Investigative Travel Holland-England-Scotland - Yvonne Thyssen-Post
July 21, 1989	40 Years Ago, Visual Vignettes of N.S. Dept. of Agriculture - Peter Hamilton

August 4, 1989	Brazil-South American Agriculture - Dr. Tarjei Tennessen
August 18, 1989	Agriculture in the Classroom - Susan Horne
September 22, 1989	Phylotaxis - Prof. Walter W. Schwabe
November 22, 1989	Nova Scotia Institute of Agrologists Symposium on Sustainable Agriculture - Dr. Philip Warman, Chairman
November 24, 1989	Listening to the Wind - Dr. Fred Dobson
December 12, 1989	Highlights of Three Years of Forage Research in Interior British Colombia
December 15, 1989	Significance of Epicuticular Wax on Forage Grass Species - Dr. Paul G. Jefferson